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वस्त्रादि मशीनरी तथा सहायकांग – बेलनाकार सलाइवर कैन

भाग 3 स्प्रिंग बाटम

Indian Standard

TEXTILES MACHINERY AND ACCESSORIES — CYLINDRICAL SLIVER CANS

PART 3 SPRING BOTTOMS

ICS 59.120.10

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

April 2000

Price Group 3

Spinning Preparatory, Spinning and Doubling (Twisting) Machinery Sectional Committee, TX 15

NATIONAL FOREWORD

This Indian Standard (Part 3) which is identical with ISO 93-2:1999 'Textile machinery and accessories — Cylindrical sliver cans — Part 2 : Spring bottoms' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Spinning Preparatory, Spinning and Doubling (Twisting) Machinery Sectional Committee and approval of the Textile Division Council.

This standard (Part 3) covers requirements for spring bottoms for cylindrical sliver cans with and without castors. Parts 1 and 2 of this standard cover specific requirements including dimensions for vulcanized fibre sliver cans, aluminium alloy sliver cans and high density polyethylene sliver cans. Accordingly, this standard supersedes IS 11187:1985 'Spring bottoms for cylindrical sliver cans'.

The text of ISO Standard has been approved as suitable for publication as Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

b) Comma (,) has been used as a decimal marker in the International Standard, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this standard, following International Standard has been referred to. Read in its place the following:

International Standard	*Indian Standard*	*Degree of Correspondence*
ISO 93-1:1998 Textile machinery and accessories — Cylindrical sliver cans — Part 1: Main dimensions	IS 14783 (Part 2) : 2000 Textiles machinery and accessories — Cylindrical sliver cans: Part 2 Main dimensions	Identical

Indian Standard

TEXTILES MACHINERY AND ACCESSORIES — CYLINDRICAL SLIVER CANS

PART 3 SPRING BOTTOMS

1 Scope

This part of ISO 93 specifies the principal features of spring bottoms, with and without pre-tension, used in cylindrical sliver cans specified in ISO 93-1.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this part of ISO 93. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 93 are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 93-1:1998, *Textile machinery and accessories — Cylindrical sliver cans — Part 1: Main dimensions.*

3 Symbols

d	inside diameter of sliver can
d_4	outside diameter of spring plate
h	height of sliver can
h_2	distance from top rim of can to surface of spring plate
h_3	depth of spring plate
F_n	force of spring
F_v	force of spring in top working position
L_0	length of unloaded spring
L_v	length of spring in top working position (i.e. when constrained)

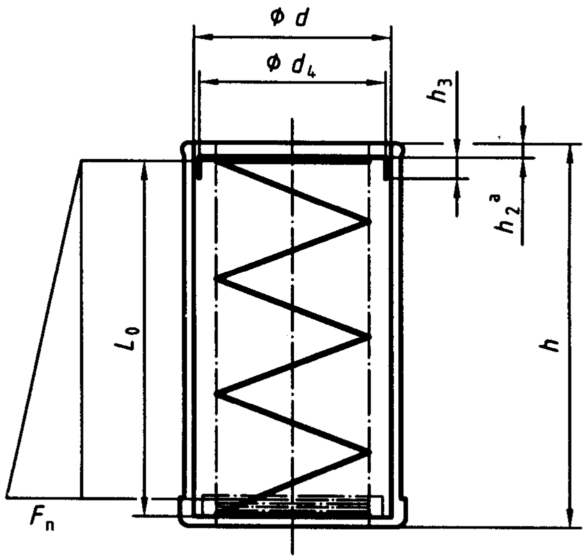
4 Principal features

4.1 Spring bottoms for cylindrical cans without castors

See Figures 1 and 2, and Table 1.

F_V as well as tolerances of parallelism of the spring plate shall be agreed between the producer, machine manufacturer and customer.

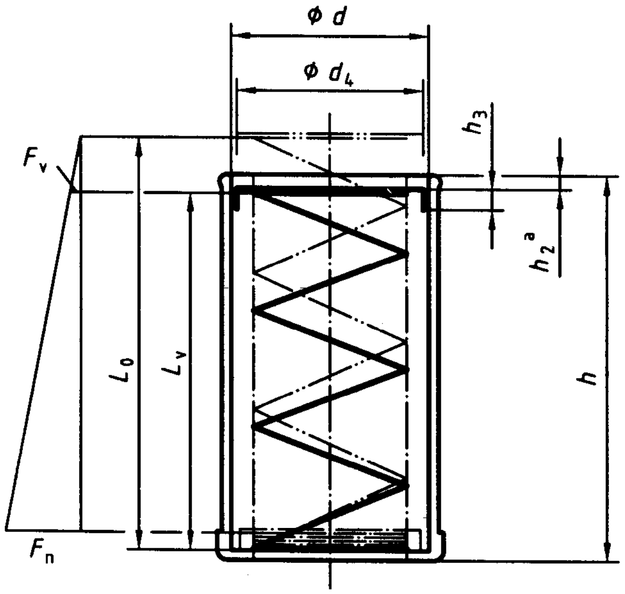
Dimensions in millimetres



a $5 \leq h_2 \leq 70$

Figure 1 — Spring bottom without pre-tension, type A

Dimensions in millimetres



a $h_2 = 20$

Figure 2 — Spring bottom with pre-tension, type B

Table 1 — Principal features of spring bottoms — Types A and B

Dimensions in millimetres

Size of can [a]		Characteristics of spring		Spring plate	
d ± 3	h	Type A $L_0 \pm 30$	Type B $L_0 \pm 30$	d_4	h_3
300	900	840	940	285	50
350				335	50
400				385	50
450				435	50
500				485	55
600				585	60
700				682	70
300	1 000	940	1 040	285	50
350				335	50
400				385	50
450				435	50
500				485	55
600				585	60
700				682	70
400	1 100	1 040	1 140	385	50
450				435	50
500				485	55
600				585	60
700				682	70
450	1 200 [c]	1 140	1 240	435	50
500				485	55
600				585	60
700 [b]				682	70

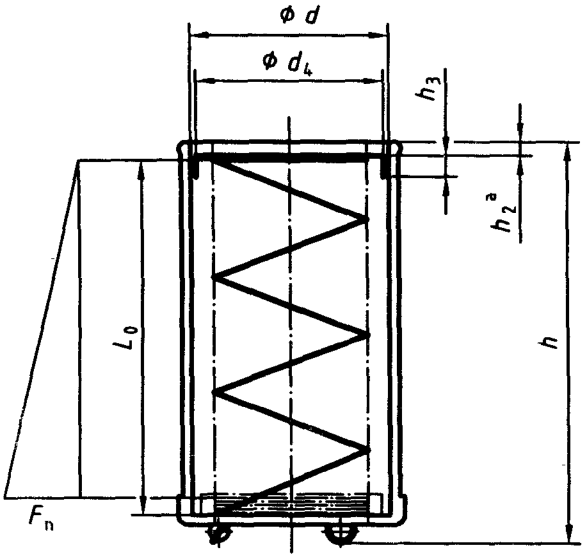
[a] See ISO 93-1.
[b] Diameters greater than 700 mm shall be in increments of 100 mm.
[c] Heights greater than 1 200 mm shall be in increments of 100 mm.

4.2 Spring bottoms for cylindrical cans with castors

See Figures 3 and 4, and Table 2.

F_V as well as tolerances of parallelism of the spring plate shall be agreed between the producer, machine manufacturer and customer.

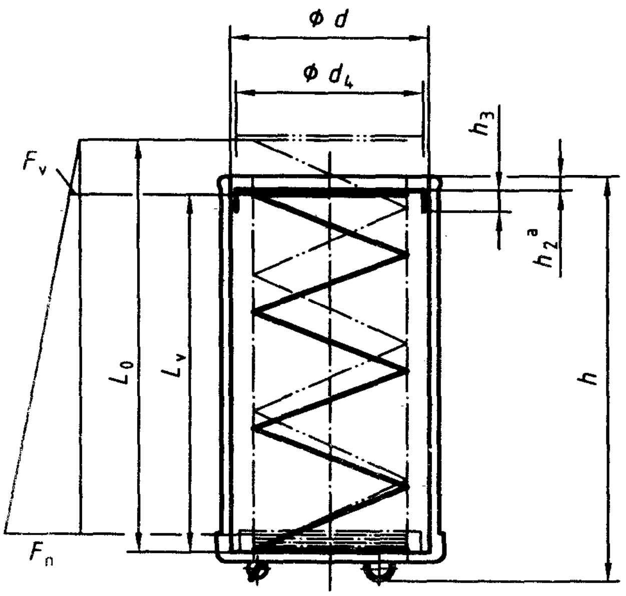
Dimensions in millimetres



a $5 \leqslant h_2 \leqslant 70$

Figure 3 — Spring bottom without pre-tension, type C

Dimensions in millimetres



a $h_2 = 20$

Figure 4 — Spring bottom with pre-tension, type D

Table 2 — Principal features of spring bottoms — Types C and D

Dimensions in millimetres

Size of can [a]		Characteristics of spring		Spring plate	
d ± 3	h	Type C $L_0 \pm 30$	Type D $L_0 \pm 30$	d_4	h_3
400	900	770	870	385	50
600				585	60
400	1 000	870	970	385	50
450				435	50
500				485	55
600				585	60
700				682	70
800				780	85
900				880	100
450	1 100	970	1 070	435	50
500				485	55
600				585	60
700				682	70
800				780	85
900				880	100
1 000				980	100
450	1 200 [c]	1 070	1 170	435	50
500				485	55
600				585	60
700				682	70
800				780	85
900				880	100
1 000 [b]				980	100

[a] See ISO 93-1.

[b] Diameters greater than 1 000 mm shall be in increments of 200 mm.

[c] Heights greater than 1 200 mm shall be in increments of 100 mm.

5 Order specification

The designation used for ordering a spring bottom for a cylindrical sliver can shall include the following particulars:

a) type;

b) characteristics of the spring; i.e. L_0 and F_n;

c) dimensions of the spring plate, i.e. d_4 and h_3;

EXAMPLE

Spring bottom for cylindrical sliver can, type D, length of unloaded spring L_0 = 1170 mm, force of spring F_n = 34 daN, outside diameter of spring plate d_4 = 780 mm, depth of spring plate h_3 = 85 mm:

Spring bottom ISO 93-2 D 1 170 × 34 – 780/85

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